Lincoln University
Te Whare Wānaka o Aoraki
AOTEAROA • NEW ZEALAND

Sheep performance on Perennial Lupins at Sawdon Station, Lake Tekapo

Gavin (Snow) Loxton, Alistair Black, Travis Ryan-Salter, Derrick Moot

New Zealand's specialist land-based university

Lincoln University
Te Whare Wānaka o Aoraki
AOTEAROA · NEW ZEALAND

Note:

This presentation was made by Snow Loxton on 7 Nov 2014 in Alexandra at the New Zealand Grassland Association Annual Conference.

It is associated with the following scientific publication:

Black, A. D., Loxton, G., Ryan-Salter, T. P. and Moot, D. J. 2014. Sheep performance on perennial lupins over three years at Sawdon Station, Lake Tekapo. *Proceedings of the New Zealand Grassland Association*, **76**, 35-39.


"Sawdon Station"

Sawdon Station

- 7500 ha – 6500 ha undeveloped, 300 ha lucerne, 500 ha pasture, and about **200 ha in lupins**
- Climate – rainfall 600 mm, 100 frosts per year
- Altitude 700 m
- 4500 Merino ewes, 1200 replacements
- Some trading cattle
- 14 years into Tenure Review

Mt John Research Centre, Tekapo

Photo: Kate Wilson

Lupin stand at Sawdon Station

Objectives

1. Animal performance on lupins
2. Seasonal growth and feed quality

Tailing to weaning 2011-12

	Lupin		Control	
	Ewes	Lambs	Ewes	Lambs
	Live weight (kg)			
12 Dec	56	19	55	18
10 Feb	53	28	60	31

Flushing 2012

	Lupin	Control
	Live weight (kg)	
23 Mar	54	53
18 May	61	62
	Scanning %	
20 August	156	156

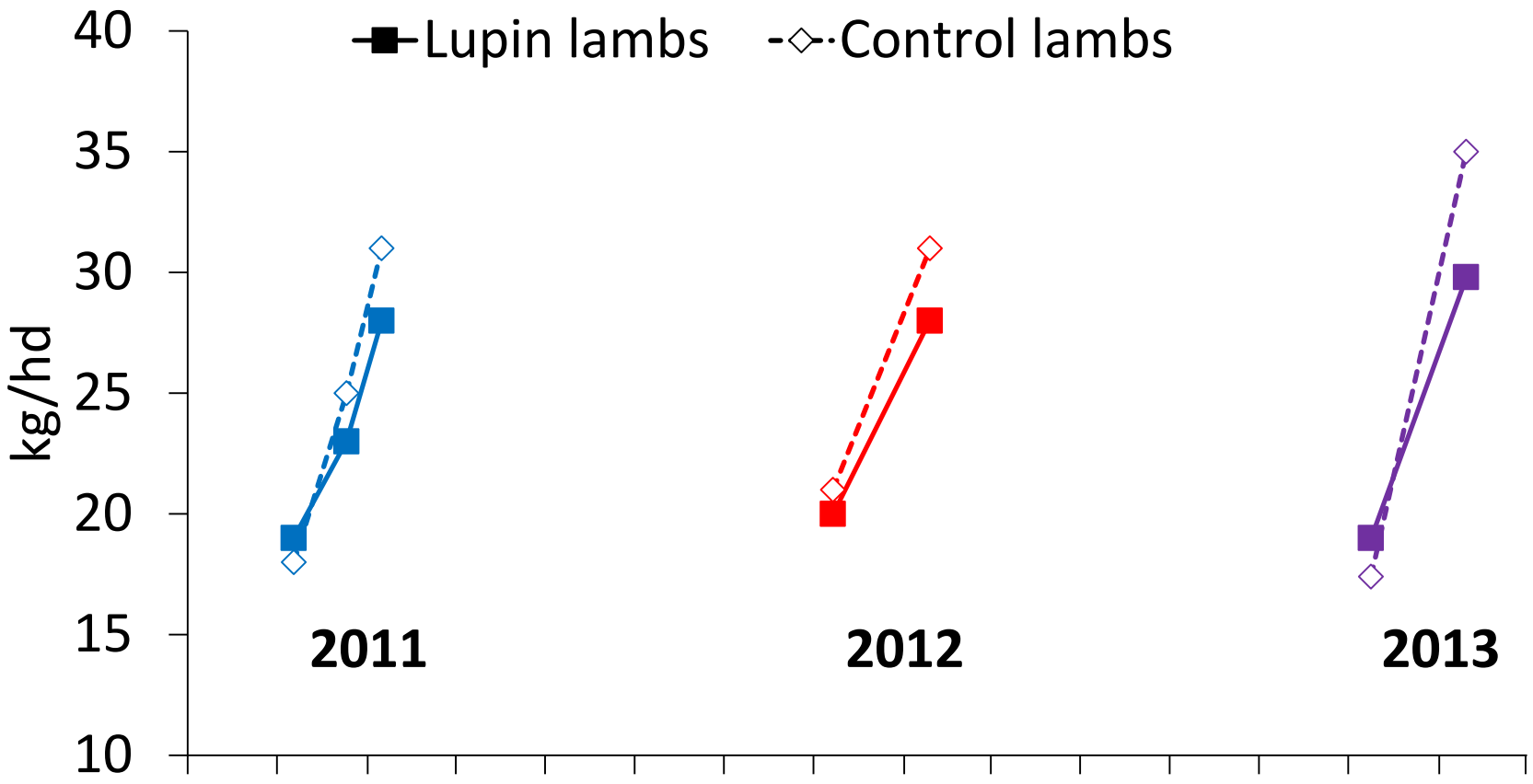
Wool growth (Sep 2012)

	Lupin	Control
Greasy fleece wt (kg)	4.64	4.92
Staple length (mm)	79	80
Mean micron (µm)	18.6	18.5

Lambing on lupins

	Lupin	Control
	Lambing %	
2012	103	93
2013	111	105

Lamb growth (Dec – Feb)



JULY 2012

Winter survival

SEPTEMBER 2012

Lupin recovered after winter – 2 t DM/ha

NOVEMBER 2012

Cover during lambing – 6.1 t DM/ha


DECEMBER 2012
Sheep ate the flowers first – 6.6 t DM/ha

JANUARY 2013

Pre-grazing cover – 7.6 t DM/ha


JANUARY 2013
Post-grazing cover – 4.6 t DM/ha

New leaves regrow from basal shoots


FEBRUARY 2013
Pre-grazing – 6.3 t DM/ha (24% other species)

Pre-grazing cover – 4.9 t DM/ha

Lupin nutritive value

	ME value	Crude protein
Lupin leaf	11.2	20.0%
Lupin stem	10.7	19.5%
Other species	10.5	16.0%

Conclusions

1. Animal performance was similar on lupins and lucerne

2. Perennial lupins can persist, and produce high quality and quantity forage


Lupins.nz


cm
45
40